CPC COOPERATIVE PATENT CLASSIFICATION

G21K TECHNIQUES FOR HANDLING PARTICLES OR IONISING RADIATION NOT OTHERWISE PROVIDED FOR IRRADIATION DEVICES GAMMA RAY OR X-RAY MICROSCOPES

NOTE

In this subclass, the following term is used with the meaning indicated:
"particle" means a molecular, atomic or subatomic particle

WARNING

The following IPC group is not used in the CPC scheme. Subject matter covered this group is classified in the following CPC group:
- G21K 3/00 covered by G21K 1/10

Guide heading:

G21K 1/00 **Arrangements for handling particles or ionizing radiation, e.g. focusing or moderating** (production or acceleration of neutrons, electrically-charged particles, neutral molecular beams or neutral atomic beams H05H 3/00 - H05H 15/00)

G21K 1/003 . { Manipulation of charged particles by using radiation pressure, e.g. optical levitation (acceleration of charged particles H05H 5/00 , H05H 7/00 , H05H 9/00 , H05H 11/00 , H05H 13/00) }

G21K 1/006 . { Manipulation of neutral particles by using radiation pressure, e.g. optical levitation (production or acceleration of neutral particles H05H 3/00) }

G21K 1/02 . using diaphragms, collimators

G21K 1/025 . . { using multiple collimators, e.g. Bucky screens; other devices for eliminating undesired or dispersed radiation }

G21K 1/04 . . using variable diaphragms, shutters, choppers

G21K 1/043 . . . { changing time structure of beams by mechanical means, e.g. choppers, spinning filter wheels }

G21K 1/046 . . . { varying the contour of the field, e.g. multileaf collimators }

G21K 1/06 . using diffraction, refraction or reflection, e.g. monochromators (G21K 1/10 , G21K 7/00 take precedence)

G21K 1/062 . . { Devices having a multilayer structure }

G21K 1/065 . . { using refraction, e.g. Tomie lenses }

G21K 1/067 . . { using surface reflection, e.g. grazing incidence mirrors, gratings (multilayer mirrors G21K 1/062 ; crystal optics G21K 1/06) }

G21K 1/08 . Deviation, concentration or focusing of the beam by electric or magnetic means (electron-optical arrangements in electric discharge tubes H01J 29/46 ; { details, e.g.

electric or magnetic deviating means for direct voltage accelerators or in accelerators using single pulses H05H 5/02 ; arrangements for injecting particles into orbits H05H 7/08 ; arrangements for ejecting particles from orbits H05H 7/10 })

G21K 1/087 . . by electrical means

G21K 1/093 . . by magnetic means

G21K 1/10 . Scattering devices
Absorbing devices
Ionising radiation filters

G21K 1/12 . . Resonant absorbers or driving arrangements therefor, e.g. for Moessbauer-effect devices { (motors with reciprocating, oscillating or vibrating magnet, armature or coil system in general H02K 33/00) }

G21K 1/14 . using charge exchange devices, e.g. for neutralising or changing the sign of the electrical charges of beams (producing or accelerating neutral particle beams H05H 3/00)

G21K 1/16 . using polarising devices, e.g. for obtaining a polarised beam { (ion sources, ion guns H01J 27/02 ; polarised targets for producing nuclear reactions H05H 6/005) }

G21K 4/00 **Conversion screens for the conversion of the spatial distribution of X-rays or particle radiation into visible images, e.g. fluoroscopic screens** (photographic processes using X-ray intensifiers G03C 5/17 ; discharge tubes comprising luminescent screens H01J 1/62 ; cathode ray tubes for X-ray conversion with optical output H01J 31/50)

G21K 5/00 **Irradiation devices** (discharge tubes for irradiating H01J 37/00)

G21K 5/02 . having no beam-forming means

G21K 5/04 . with beam-forming means

G21K 5/08 . Holder for targets or for other objects to be irradiated

G21K 5/10 . with provision for relative movement of beam source and object to be irradiated

G21K 7/00 **Gamma- or X-ray microscopes**

Guide heading:

G21K 2004/00 **Conversion screens for the conversion of the spatial distribution of X-rays or particle radiation into visible images, e.g. fluoroscopic screens** (photographic processes using X-ray intensifiers G03C 5/17 ; discharge tubes comprising luminescent screens H01J 1/62 ; cathode ray tubes for X-ray conversion with optical output H01J 31/50)

G21K 2004/02 . characterised by the external panel structure

G21K 2004/04 . with an intermediate layer

G21K 2004/06 . with a phosphor layer

G21K 2004/08 . with a binder in the phosphor layer

G21K 2004/10 . with a protective film

G21K 2004/12 . with a support

Guide heading:

G21K 2201/00 Arrangements for handling radiation or particles

G21K 2201/06 . using diffractive, refractive or reflecting elements
G21K 2201/061 . . characterised by a multilayer structure
G21K 2201/062 . . the element being a crystal
G21K 2201/064 . . having a curved surface
G21K 2201/065 . . provided with cooling means
G21K 2201/067 . . Construction details
G21K 2201/068 . . specially adapted for particle beams

Guide heading:

G21K 2207/00 Particular details of imaging devices or methods using ionizing electromagnetic radiation such as X-rays or gamma rays

G21K 2207/005 . Methods and devices obtaining contrast from non-absorbing interaction of the radiation with matter, e.g. phase contrast